

## REMARKS

Applicant respectfully requests reconsideration of this application as amended.

The Examiner is thanked for the thorough review of the application.

By this amendment the priority data has been updated in accordance with the Examiner's request.

Regarding the objections to the terms "correctable" and "because," Applicants respectfully submit that the terms are not only definite, but also positive recitations. In the claim, the INP value specifies the number of corrupted DMT symbols that can be corrected by the transceiver. Despite term referencing a future act, the term is definite and the meets and bounds of the claim are clearly discernable. Withdrawal of the objection is respectfully requested.

Regarding the rejection under 35 USC §112, and with reference to at least the following portions of the specification, and the previously referenced portions, Applicants respectfully request the withdrawing of the rejection in that the claimed terminology is clearly described in such a way as to reasonably convey to one skilled in the art that the inventor had possession of the claimed invention.

[0013] Exemplary aspects of this invention relate to determining the impact of impulse noise on a communication system and the capability to determine how the system should be configured to handle the impulse noise event.

[0014] An exemplary aspect of this invention determines the impact of impulse noise by transmitting and receiving using a plurality of different FEC and interleaving parameter settings.

[0017] The process of determining the impact of impulse noise by transmitting and receiving using a plurality of FIP settings can be done while in steady-state transmission, i.e., Showtime for DSL systems, when user information bits are being transmitted.

[0018] The process of determining the impact of impulse noise by transmitting and receiving using a plurality of FIP settings, can be done during a special impulse noise training period during which the system is not actually transmitting user data. In accordance with this exemplary aspect of the invention, the standard xDSL procedure is modified to include the capability of measuring the effectiveness of a chosen impulse noise protection (INP) setting during initialization and having receiver-controlled updates of transmission parameters that control the INP setting, e.g., FEC parameters and interleaving parameters, during initialization.

Evaluation of the impact of impulse noise on a communication system can be utilized to determine how the system should be configured to adapt to impulse noise events. Moreover, the system allows for information regarding impulse noise events, such as length of the event, repetition period of the event and timing of the event, to be collected and forwarded to a destination. The adaptation can be performed during one or more of Showtime and initialization, and can be initiated and determined at either one or more of a transmitter and a receiver.

(Abstract)

In relation to the art-based rejection, and without concession as to the propriety of the outstanding rejection, the independent claims have generally been amended to recite, wherein the updating from first INP value to the second INP value occurs during Showtime without reinitializing the transceiver.

As previously asserted, in that the relied upon references to support the rejection under 35 U.S.C. §103 fail to even mention the term “repetition period,” as claimed, the references cannot render obvious nor anticipate the claims. More specifically, and as conceded by the Office Action, “Cioffi fails to teach that the information or value indicates a repetition period of impulse noise indicating how often impulse noise events occur on a channel.”

Hariton is relied upon for this teaching. Hariton states:

The a.c. line coupling network includes a zero crossing circuit to detect the start of each a.c. cycle; a transient-voltage limiting front end to detect impulse noises above a threshold and minimize ringing, and a timing circuit to determine the time and duration of each impulse in each sampled a.c. cycle. The microprocessor records the start and stop times of impulses, repetitively scans several a.c. cycles and determines whether or not the impulses are periodic. For periodic impulses, the microprocessor *blocks communication on the modem during the impulses*, enabling the transceiver to transmit and receive between impulses. (Abstract - Emphasis Added)

In sharp contrast, the independent claims generally recite:

updating, based on the received information, a first INP value in the transceiver to a second, different, INP value, the first INP value specifying a first number of corrupted DMT symbols that are correctable by the transceiver and the second INP value specifying a second number of corrupted DMT symbols that are correctable by the transceiver, wherein the second number is different than the first number, wherein the updating from first INP value to the second INP value occurs during Showtime without reinitializing the transceiver.

Hariton does not mention DMT, nor is the system of Hariton even capable of communicating using DMT. Moreover, it would be impossible technologically to combine the teachings of Hariton and Cioffi as asserted by the Office Action.

In that comparable remarks can be made for the other independent claims, all claims are patentably distinguishable from the references of record for at least the above reasons and the additional feature(s) recited therein.

Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is encouraged to contact Applicants undersigned representative at the telephone number listed below.

The Commissioner is hereby authorized to charge to deposit account number 19-1970 any fees under 37 CFR § 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby petitioned.

Respectfully submitted,

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